| L Number | Hits | Search Text | DB | Time stamp |
|-------------|--------|--|-----------|------------|
| 1 | 773367 | catalyst catalytic | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 16:14 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 2 | 11273 | (catalyst catalytic) with (("70" "71" "72" "73" | USPAT; | 2004/07/27 |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | US-PGPUB; | 18:01 |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | EPO; JPO; | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | DERWENT | |
| | | (weight wt "wt%" "%wt" "wt.%")) | | - |
| 3 | 2 | ((catalyst catalytic) with (("70" "71" "72" "73" | USPAT; | 2004/07/27 |
| | _ | "74" "75" "76" "77" "78" "79" "80" "81" "82" | US-PGPUB; | 16:28 |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | EPO; JPO; | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | DERWENT | |
| | | (weight wt "wt%" "%wt" "wt.%"))) same ((ptfe | | |
| | • | polytetrafluoroethylene teflon) near1 bind\$3) | , | |
| 4 | 18 | "727748" | USPAT; | 2004/07/27 |
| -7 | | 121140 | US-PGPUB; | 16:29 |
| | | | EPO; JPO; | 10.23 |
| | | | DERWENT | |
| 5 | 2 | "727748" and "75" | USPAT; | 2004/07/27 |
| J | _ | 121146 and 15 | | 16:29 |
| | | | US-PGPUB; | 10:29 |
| | | | EPO; JPO; | |
| c | 4000 | 420/40 | DERWENT | 2004/07/27 |
| 6 | 1089 | 429/40.ccls. | USPAT; | 2004/07/27 |
| | | , | US-PGPUB; | 16:29 |
| | | | EPO; JPO; | |
| _ | | 400/40 | DERWENT | 0004/07/07 |
| 7 | 777 | 429/42.ccls. | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 16:29 |
| | | | EPO; JPO; | |
| _ | | | DERWENT | |
| 8 | 1684 | 429/40.ccls. 429/42.ccls. | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 16:29 |
| | | | EPO; JPO; | |
| _ | | | DERWENT | |
| 9 | 45 | (429/40.ccls. 429/42.ccls.) and ((catalyst | USPAT; | 2004/07/27 |
| | | catalytic) with (("70" "71" "72" "73" "74" "75" | US-PGPUB; | 16:34 |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | EPO; JPO; | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | DERWENT | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%"))) | | |
| 10 | 7 | 5480735.URPN. | USPAT | 2004/07/27 |
| | | | | 16:32 |
| 11 | 700 | 502/101.ccls. | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 16:36 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 12 | 16720 | 502/1\$.ccls. | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 16:36 |
| | 8 | | EPO; JPO; | |
| | | | DERWENT | |

| 40 | 404 | | HEDAT. | 2004/07/27 |
|----|-----|---|-----------|------------|
| 13 | 461 | 502/1\$.ccls. and ((catalyst catalytic) with | USPAT; | 2004/07/27 |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:36 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) | | |
| 14 | 443 | (502/1\$.ccls. and ((catalyst catalytic) with | USPAT; | 2004/07/27 |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:36 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) | | |
| 15 | 3 | (502/1\$.ccls. and ((catalyst catalytic) with | EPO; JPO; | 2004/07/27 |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | DERWENT | 16:37 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) | | |
| 16 | 440 | | USPAT; | 2004/07/27 |
| 10 | 770 | ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:37 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | 10.57 |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | |
| | | "97" "98" "99") near1 (weight wt "wt%" | DERWENT | |
| | | | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | * | | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))))) not ((502/1\$.ccls. and | | |
| | | ((catalyst catalytic) with (("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%")))) not | | |
| | | ((429/40.ccis. 429/42.ccis.) and ((catalyst | | |
| | 1 | catalytic) with (("70" "71" "72" "73" "74" "75" | | |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%"))))) | | |

| 17 | 429 | (((502/1\$.ccls. and ((catalyst catalytic) with | USPAT; | 2004/07/27 |
|----|-----|--|-----------|------------|
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:37 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))))) not ((502/1\$.ccls. and | | |
| | | ((catalyst catalytic) with (("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%")))) not | | |
| | | ((429/40.ccls. 429/42.ccls.) and ((catalyst | | |
| | | catalytic) with (("70" "71" "72" "73" "74" "75" | | |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%"))))) not (fuel adj | | |
| | | cell\$1) | | |

2004/07/27 (((502/1\$.ccls. and ((catalyst catalytic) with USPAT; 18 (("70" "71" "72" "73" "74" "75" "76" "77" "78" **US-PGPUB**; 16:37 "79" "80" "81" "82" "83" "84" "85" "86" "87" EPO; JPO; "88" "89" "90" "91" "92" "93" "94" "95" "96" DERWENT "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" **"**82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not (fuel adj cell\$1))

| 19 | 418 | (((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" | USPAT; US-PGPUB; | 2004/07/27 16:37 |
|----|-----|--|---------------------|---------------------|
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | 10.01 |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | |
| | | | DEKWENT | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))))) not ((502/1\$.ccls. and | | |
| i | | ((catalyst catalytic) with (("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%")))) not | | |
| | | ((429/40.ccls. 429/42.ccls.) and ((catalyst | | |
| | | catalytic) with (("70" "71" "72" "73" "74" "75" | | |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%"))))) not (anode | | |
| | | electrode) | | |

USPAT; 2004/07/27 20 22 (((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" US-PGPUB; 16:38 "79" "80" "81" "82" "83" "84" "85" "86" "87" EPO; JPO; "88" "89" "90" "91" "92" "93" "94" "95" "96**"** DERWENT "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))))) not (anode electrode))

| 21 | 2339758 | ((((502/1\$.ccls. and ((catalyst catalytic) with | USPAT; | 2004/07/27 |
|----|---------|--|----------------------|------------|
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:38 |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; DERWENT | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DEKWENI | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))))) not ((502/1\$.ccls. and | | |
| | | ((catalyst catalytic) with (("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | = | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%")))) not | | |
| | | ((429/40.ccls. 429/42.ccls.) and ((catalyst | | |
| | | catalytic) with (("70" "71" "72" "73" "74" "75" | | |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%")))))) not | | |
| | | ((((502/1\$.ccls. and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%")))) not ((429/40.ccls. | | |
| | | 429/42.ccls.) and ((catalyst catalytic) with | | |
| | | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))))) not ((502/1\$.ccls. and | | |
| | | ((catalyst catalytic) with (("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%")))) not | | |
| | | ((429/40.ccls. 429/42.ccls.) and ((catalyst | | |
| | | catalytic) with (("70" "71" "72" "73" "74" "75" | | |
| | | "76" "77" "78" "79" "80" "81" "82" "83" "84" | 1 | |
| | | "85" "86" "87" "88" "89" "90" "91" "92" "93" | 1 | |
| | | "94" "95" "96" "97" "98" "99") near1 (weight | | |
| | | wt "wt%" "%wt" "wt.%"))))) not (fuel adj | | |
| | | cell\$1))) "29" | | |

USPAT; 2004/07/27 22 22 ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" US-PGPUB; 16:40 "79" "80" "81" "82" "83" "84" "85" "86" "87" EPO; JPO; **DERWENT** "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not (fuel adj cell\$1))) ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" <u>"79" "80" "81" "82" "83" "84" "85" "86" "87"</u> Search History 7/27/04 7439:049PM90-Pasp-8-92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%"

110/12/40 Tile 4 0/11/1/1 mat //END/4¢ and and

| 23 | 25545 | (catalyst catalytic) with bind\$3 | USPAT; | 2004/07/27 | |
|----|--------|---|----------------------|------------|--|
| | | | US-PGPUB; | 16:52 | |
| | | | EPO; JPO; | | |
| | | | DERWENT | | |
| 24 | 1036 | ((catalyst catalytic) with bind\$3) same (("70" | USPAT; | 2004/07/27 | |
| _ | | "71" "72" "73" "74" "75" "76" "77" "78" "79" | US-PGPUB; | 16:42 | |
| | | "80" "81" "82" "83" "84" "85" "86" "87" "88" | EPO; JPO; | | |
| | | "89" "90" "91" "92" "93" "94" "95" "96" "97" | DERWENT | | |
| | | "98" "99") near1 (weight wt "wt%" "%wt" | | | |
| | | "wt.%")) | | | |
| 25 | 11 | (((catalyst catalytic) with bind\$3) same | USPAT; | 2004/07/27 | |
| | • | (("70" "71" "72" "73" "74" "75" "76" "77" "78" | US-PGPUB; | 16:47 | |
| | | "79" "80" "81" "82" "83" "84" "85" "86" "87" | EPO; JPO; | 10.47 | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | DERWENT | | |
| | | "97" "98" "99") near1 (weight wt "wt%" | DERWENT | | |
| | | "%wt" "wt.%"))) and (429/\$.ccls. h01m) | | | |
| 26 | 5587 | | HEDAT. | 2004/07/27 | |
| 20 | 3307 | ((catalyst catalytic) with bind\$3) and | USPAT; | | |
| | | ((catalyst catalytic) with (pt platinum ru | US-PGPUB; | 18:02 | |
| | | ruthenium rh rhodium pd palladium mo | EPO; JPO; | | |
| 27 | 420 | molybdenum)) | DERWENT | 2004/07/27 | |
| 21 | 429 | (((catalyst catalytic) with bind\$3) and | USPAT; | | |
| | | ((catalyst catalytic) with (pt platinum ru | US-PGPUB; | 19:15 | |
| | | ruthenium rh rhodium pd palladium mo | EPO; JPO; | | |
| | | molybdenum))) and ((bind\$3) with (tfe | DERWENT | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | | |
| | | hexafluoropropylene ptfe teflon | | | |
| 28 | 266752 | polytetrafluoroethylene)) (("70" "71" "72" "73" "74" "75" "76" "77" "78" | HEDAT. | 2004/07/27 | |
| 20 | 200732 | "79" "80" "81" "82" "83" "84" "85" "86" "87" | USPAT; US-PGPUB; | 18:02 | |
| | | "88" "89" "90" "91" "92" "93" "94" "95" "96" | · · | 10:02 | |
| | | | EPO; JPO; DERWENT | | |
| | | "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")) | DERWENT | | |
| 29 | 54 | | HEDAT. | 2004/07/27 | |
| 23 | 34 | ((((catalyst catalytic) with bind\$3) and | USPAT; | | |
| | | ((catalyst catalytic) with (pt platinum ru | US-PGPUB; | 16:56 | |
| | | ruthenium rh rhodium pd palladium mo | EPO; JPO; | | |
| | | molybdenum))) and ((bind\$3) with (tfe | DERWENT | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | | |
| | | hexafluoropropylene ptfe teflon | | | |
| | | polytetrafluoroethylene))) and ((("70" "71" | | | |
| | | "72" "73" "74" "75" "76" "77" "78" "79" "80" | | | |
| | | "81" "82" "83" "84" "85" "86" "87" "88" "89" | | | |
| | | "90" "91" "92" "93" "94" "95" "96" "97" "98" | | | |
| | | "99") near1 (weight wt "wt%" "%wt" "wt.%"))) | | | |

2004/07/27 (((((catalyst catalytic) with bind\$3) and USPAT; 30 **US-PGPUB**; 16:56 ((catalyst catalytic) with (pt platinum ru ruthenium rh rhodium pd palladium mo EPO; JPO; DERWENT molybdenum))) and ((bind\$3) with (tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene))) and ((("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccis. 429/42.ccis.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" <u>"85" "86" "87" "88" "89" "90" "91" "92" "93"</u> 7/27/04 7429:045 PM96-Pasp-1-98" "99") near1 (weight Search History wt "wt%" "%wt" "wt.%"))))) not (anode

31 ((((((catalyst catalytic) with bind\$3) and USPAT; 2004/07/27 39 16:58 **US-PGPUB**; ((catalyst catalytic) with (pt platinum ru ruthenium rh rhodium pd palladium mo EPO; JPO; **DERWENT** molybdenum))) and ((bind\$3) with (tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene))) and ((("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not ((502/1\$.ccls. and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%")))) not ((429/40.ccls. 429/42.ccls.) and ((catalyst catalytic) with (("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" <u>"85" "86" "87" "88" "89" "90" "91" "92" "93" </u> Search History 7/27/04 7429:045PM96-Page-1-18" "99") near1 (weight wt "wt%" "%wt" "wt.%"))))) not (anode

alastrada\\\\ mat ///20///0 aala //20///2 aala \

| 32 | 96905 | high near2 load\$3 | USPAT; | 2004/07/27 |
|----|--------|---|-----------|---------------------|
| - | | ingii nouve rocerv | US-PGPUB; | 16:58 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 33 | 753 | (high near2 load\$3) near5 (catalyst catalytic) | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 17:01 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 34 | 94 | ((high near2 load\$3) near5 (catalyst | USPAT; | 2004/07/27 |
| | | catalytic)) and ((("70" "71" "72" "73" "74" | US-PGPUB; | 17:01 |
| | | "75" "76" "77" "78" "79" "80" "81" "82" "83" | EPO; JPO; | |
| | | "84" "85" "86" "87" "88" "89" "90" "91" "92" | DERWENT | |
| | | "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) | | |
| 35 | 1240 | ((("70" "71" "72" "73" "74" "75" "76" "77" | USPAT; | 2004/07/27 |
| | | "78" "79" "80" "81" "82" "83" "84" "85" "86" | US-PGPUB; | 18:10 |
| | | "87" "88" "89" "90" "91" "92" "93" "94" "95" | EPO; JPO; | |
| | | "96" "97" "98" "99") near1 (weight wt "wt%" | DERWENT | |
| | | "%wt" "wt.%"))) near2 (pt platinum ru | | |
| | | ruthenium rh rhodium pd palladium mo | | |
| | | molybdenum) | | |
| 36 | 683400 | (("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:05 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%")) | DERWENT | |
| 37 | 992261 | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 19:17 |
| | | polytetrafluoroethylene) | EPO; JPO; | |
| | | | DERWENT | |
| 38 | 8391 | ((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:10 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near2 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) | | |
| 39 | 11 | (((("70" "71" "72" "73" "74" "75" "76" "77" | USPAT; | 2004/07/27 |
| | | "78" "79" "80" "81" "82" "83" "84" "85" "86" | US-PGPUB; | 18:09 |
| | | "87" "88" "89" "90" "91" "92" "93" "94" "95" | EPO; JPO; | |
| | | "96" "97" "98" "99") near1 (weight wt "wt%" | DERWENT | |
| | | "%wt" "wt.%"))) near2 (pt platinum ru | | |
| | | ruthenium rh rhodium pd palladium mo | | |
| | | molybdenum)) same (((("1" "2" "3" "4" "5" "6" | | |
| | | "7" "8" "9" "10" "11" "12" "13" "14" "15" "16" | | |
| | | "17" "18" "19" "20" "21" "22" "23" "24" "25" | | |
| | | "26" "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near2 ((bind\$3 tfe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) | | 2004/07/07 |
| 40 | 1 | 1972-42892T.NRAN. | DERWENT | 2004/07/27 |
| 41 | _ | | LICDAT | 18:06 2004/07/27 |
| | 5 | 5236630.URPN. | USPAT | : 4004/0//4/ |

| 42 | 1509993 | ANODE\$1 ELECTRODE\$1 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2004/07/27 18:09 |
|----|---------|---|---|---------------------|
| 43 | 325 | (((("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "wt.%"))) near2 (pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) AND (ANODE\$1 ELECTRODE\$1) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2004/07/27 18:10 |
| 44 | 18494 | ((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" "14" "15" "16" "17" "18" "19" "20" "21" "22" "23" "24" "25" "26" "27" "28" "29") near1 (weight wt "wt%" "%wt" "wt.%"))) near5 ((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2004/07/27 18:32 |
| 45 | 2236 | ((("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))) near5 (pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2004/07/27 18:34 |
| 46 | 89 | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" "14" "15" "16" "17" "18" "19" "20" "21" "22" "23" "24" "25" "26" "27" "28" "29") near1 (weight wt "wt%" "%wt" "wt.%"))) near5 ((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene))) AND (((("70" "71" "72" "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" "99") near1 (weight wt "wt%" "%wt" "wt.%"))) near5 (pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2004/07/27 18:13 |

| 47 | 45 | ((((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" | USPAT; | 2004/07/27 |
|-----------|----|--|-----------|------------|
| | | "11" "12" "13" "14" "15" "16" "17" "18" "19" | US-PGPUB; | 18:13 |
| | | "20" "21" "22" "23" "24" "25" "26" "27" "28" | EPO; JPO; | |
| | | "29") near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) AND (((("70" "71" | | |
| | | "72" "73" "74" "75" "76" "77" "78" "79" "80" | | |
| | | | | |
| | | "81" "82" "83" "84" "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96" "97" "98" | : | |
| | | | | |
| | | "99") near1 (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | near5 (pt platinum ru ruthenium rh rhodium | | |
| | | pd palladium mo molybdenum))) NOT (((("1" | | |
| | | "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" | | |
| | | "13" "14" "15" "16" "17" "18" "19" "20" "21" | | |
| | | "22" "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) | | |
| 48 | 78 | ((((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" | USPAT; | 2004/07/27 |
| | | "11" "12" "13" "14" "15" "16" "17" "18" "19" | US-PGPUB; | 18:13 |
| | | "20" "21" "22" "23" "24" "25" "26" "27" "28" | EPO; JPO; | |
| | | "29") near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) AND (((("70" "71" | | |
| | | "72" "73" "74" "75" "76" "77" "78" "79" "80" | | |
| | | | | |
| | | "81" "82" "83" "84" "85" "86" "87" "88" "89" | | |
| | | "90" "91" "92" "93" "94" "95" "96" "97" "98" | | |
| | | "99") near1 (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | near5 (pt platinum ru ruthenium rh rhodium | | |
| | | pd palladium mo molybdenum))) NOT ((((("70" | | |
| | | "71" "72" "73" "74" "75" "76" "77" "78" "79" | | |
| | | "80" "81" "82" "83" "84" "85" "86" "87" "88" | | |
| | | "89" "90" "91" "92" "93" "94" "95" "96" "97" | | |
| İ | | "98" "99") near1 (weight wt "wt%" "%wt" | | |
| | | "wt.%"))) near2 (pt platinum ru ruthenium rh | | |
| | | rhodium pd palladium mo molybdenum)) same | | |
| | | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | | |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | | |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | near2 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)))) | | |
| 19 | 4 | 1986-172926.NRAN. | DERWENT | 2004/07/27 |
| - | • | Evzeniumi | | 18:20 |
| | 1 | 1993-076781.NRAN. | DERWENT | 2004/07/27 |
| 50 I | | | | |

| 51 | 15519 | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
|----------------|-------|--|-----------|------------|
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:40 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1) | | |
| 52 | 15124 | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:25 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | |
| | | ELECTRODE\$1) | | |
| 53 | 1697 | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:25 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafiuoroethylene))) NOT (((((("1" "2" | | |
| | | "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | • |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (| | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1)) ((((("1" "2" "3" "4" "5" "6" "7" "8" | | |
| | | "9" "10" "11" "12" "13" "14" "15" "16" "17" | | |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | 1 | |
| | | "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 tfe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | ' |
| | | ELECTRODE\$1))) | | |
| 54 | 6556 | ((("70" "71" "72" "73" "74" "75" "76" "77" | USPAT; | 2004/07/27 |
| _ - | | "78" "79" "80" "81" "82" "83" "84" "85" "86" | US-PGPUB; | 18:26 |
| | | "87" "88" "89" "90" "91" "92" "93" "94" "95" | EPO; JPO; | |
| | | "96" "97" "98" "99") near1 (weight wt "wt%" | DERWENT | |
| | | "%wt" "wt.%"))) near5 (pt platinum ru | | |
| | | ruthenium rh rhodium pd palladium mo | | |
| | | molybdenum cataly\$5) | | |

| 55 | 45 | ((((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" | USPAT; | 2004/07/27 |
|----|----|---|-----------|------------|
| | | "11" "12" "13" "14" "15" "16" "17" "18" "19" | US-PGPUB; | 18:26 |
| | | "20" "21" "22" "23" "24" "25" "26" "27" "28" | EPO; JPO; | |
| | | "29") near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (((((("1" "2" | | |
| | | "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (| | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1)) ((((("1" "2" "3" "4" "5" "6" "7" "8" | | |
| | | "9" "10" "11" "12" "13" "14" "15" "16" "17" | | |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | | |
| | | "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 tfe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | |
| | | ELECTRODE\$1)))) and (((("70" "71" "72" "73" | | |
| : | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum cataly\$5)) | | |

| 56 | 20 | (((((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" | USPAT; | 2004/07/27 |
|----|----|---|-----------|------------|
| | | "11" "12" "13" "14" "15" "16" "17" "18" "19" | US-PGPUB; | 18:29 |
| | | "20" "21" "22" "23" "24" "25" "26" "27" "28" | EPO; JPO; | |
| | | "29") near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (((((("1" "2" | | |
| | | "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (| | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1)) ((((("1" "2" "3" "4" "5" "6" "7" "8" | | |
| | | "9" "10" "11" "12" "13" "14" "15" "16" "17" | | |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | | |
| | | "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 tfe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | |
| | | hexafluoropropylene ptfe teflon | - | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | |
| Ì | | ELECTRODE\$1)))) and (((("70" "71" "72" "73" | | |
| | | "74" "75" "76" "77" "78" "79" "80" "81" "82" | | |
| | | "83" "84" "85" "86" "87" "88" "89" "90" "91" | | |
| | | "92" "93" "94" "95" "96" "97" "98" "99") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum cataly\$5))) not (((| | |
| | | (("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | | |
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | | |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| ľ | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) AND (((("70" "71" | | |
| | | "72" "73" "74" "75" "76" "77" "78" "79" "80" | | |
| | | "81" "82" "83" "84" "85" "86" "87" "88" "89" | | |
| | | "90" "91" "92" "93" "94" "95" "96" "97" "98" | | |
| ĺ | | "99") | | |
| | | near5 (pt platinum ru ruthenium rh rhodium | | |
| | | pd palladium mo molybdenum))) | | |
| 57 | 1 | 1988-214376.NRAN. | DERWENT | 2004/07/27 |
| | | | | 18:27 |
| 58 | 1 | 1979-53513B.NRAN. | DERWENT | 2004/07/27 |
| | | | | 18:27 |

| 59 | 16797 | (((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" "11" | USPAT; | 2004/07/27 |
|----|-------|--|-----------|------------|
| | | "12" "13" "14" "15" "16" "17" "18" "19" "20" | US-PGPUB; | 18:32 |
| | | "21" "22" "23" "24" "25" "26" "27" "28" "29") | EPO; JPO; | |
| | | near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) not ((((("1" "2" "3" | | |
| | | "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | 1 | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (((((("1" "2" | | |
| | | "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | · |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) | | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | ļ | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1)) ((((("1" "2" "3" "4" "5" "6" "7" "8" | | |
| | | "9" "10" "11" "12" "13" "14" "15" "16" "17" | | |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | | |
| | | "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 tfe | | ; |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | 7 | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | |
| | | ELECTRODE\$1)))) | | |

| 60 | 28 | ((((("1" "2" "3" "4" "5" "6" "7" "8" "9" "10" | USPAT; | 2004/07/27 |
|----|-------|--|-----------|------------|
| | | "11" "12" "13" "14" "15" "16" "17" "18" "19" | US-PGPUB; | 18:32 |
| | | "20" "21" "22" "23" "24" "25" "26" "27" "28" | EPO; JPO; | |
| | | "29") near1 (weight wt "wt%" "%wt" "wt.%"))) | DERWENT | |
| | | near5 ((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) not ((((("1" "2" "3" | | |
| | | "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (| | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT ((((("1" "2" | | |
| | | "3" "4" "5" "6" "7" "8" "9" "10" "11" "12" "13" | | |
| | | "14" "15" "16" "17" "18" "19" "20" "21" "22" | | |
| | | "23" "24" "25" "26" "27" "28" "29") near1 | | |
| | | (weight wt "wt%" "%wt" "wt.%"))) near5 (| | |
| | | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | | |
| | | | | |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (FUELADJ | | |
| | | CELL\$1)) (((("1" "2" "3" "4" "5" "6" "7" "8" | | |
| | | "9" "10" "11" "12" "13" "14" "15" "16" "17" | | |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | | |
| | | "27" "28" "29") near1 (weight wt "wt%" | | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 ffe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | : | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) NOT (ANODE\$1 | | |
| | | ELECTRODE\$1))))) and 502/1\$.ccls. | | |
| 61 | 82 | 502/1\$.ccls. and (((("1" "2" "3" "4" "5" "6" "7" | USPAT; | 2004/07/27 |
| | | "8" "9" "10" "11" "12" "13" "14" "15" "16" "17" | US-PGPUB; | 18:32 |
| | | "18" "19" "20" "21" "22" "23" "24" "25" "26" | EPO; JPO; | |
| | | "27" "28" "29") near1 (weight wt "wt%" | DERWENT | |
| | | "%wt" "wt.%"))) near5 ((bind\$3 tfe | | |
| | | tetrafluoroethylene hfp tfe-hfp hfp-tfe | | |
| | | hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene))) | | |
| 62 | 82695 | ((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 19:17 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum) | | |
| 63 | 29491 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:35 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("1" "99") | | |
| 64 | 793 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 19:17 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("1" and | | |
| | | "99") | | |

| 65 | 584 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
|----|------|--|-----------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:35 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | 1 | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("2" and "98") | | |
| 66 | 502 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("3" and "97") | | |
| 67 | 794 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | 10.00 |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("4" and | | |
| | | "96") | | |
| 68 | 1181 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | ! | palladium mo molybdenum)) same ("5" and | | |
| | | "95") | | |
| 69 | 667 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("6" and | | |
| | | "96") | | |
| 70 | 499 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("6" and | , | |
| | | "94") | | |
| 71 | 427 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:36 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("7" and | | |
| | | "93") | | |
| 72 | 429 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("8" and | | |
| 72 | 442 | "92") | | 0004/07/07 |
| 73 | 442 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | mindingram on making a large at the state of | DEDMESS. | |
| | | platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and | DERWENT | |

| 74 | 2020 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
|------------|------|---|-----------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("10" and "90") | | |
| 75 | 531 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("11" and "89") | | |
| 76 | 486 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("12" and "88") | | |
| 77 | 313 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("13" and | | |
| | | "87") | | |
| 78 | 346 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:37 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("14" and | | |
| | | "86") | | |
| 79 | 754 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("15" and | | |
| | | "85") | | |
| 80 | 393 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | - | palladium mo molybdenum)) same ("16" and "84") | | |
| 81 | 338 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("17" and "83") | | |
| 82 | 301 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| - - | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("18" and | | |
| | | "82") | | |

| 83 | 305 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
|----|------|---|-----------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("19" and | | |
| | | "81") | | |
| 84 | 1947 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:38 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("20" and "80") | | |
| 85 | 221 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("21" and "79") | | |
| 86 | 266 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("22" and "78") | | |
| 87 | 297 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("23" and | | |
| | | "77") | | |
| 88 | 294 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("24" and "76") | | |
| 89 | 909 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("25" and "75") | | |
| 90 | 239 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("26" and "74") | | |
| 91 | 232 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("27" and | | |
| | | "73") | | |

| 92 | 304 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
|----|------|---|-----------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:39 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("28" and "72") | | |
| 93 | 282 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:40 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("29" and "71") | | |
| 94 | 1642 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USPAT; | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | US-PGPUB; | 18:40 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | EPO; JPO; | |
| | | platinum ru ruthenium rh rhodium pd | DERWENT | |
| | | palladium mo molybdenum)) same ("30" and "70") | | |

95 31633 2004/07/27 ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp USPAT; 18:44 **US-PGPUB**; hfp-tfe hexafluoropropylene ptfe teflon EPO; JPO; polytetrafluoroethylene)) same (cataly\$4 pt DERWENT platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and 7/27/04 7979;) ((PMind\$39ft 24 etrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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96 17500 (((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp 2004/07/27 USPAT; hfp-tfe hexafluoropropylene ptfe teflon **US-PGPUB**; 18:44 polytetrafluoroethylene)) same (cataly\$4 pt EPO; JPO; DERWENT platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and 7/27/04 7979;04(PMind\$39the tetrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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97 25758 (((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp USPAT; 2004/07/27 hfp-tfe hexafluoropropylene ptfe teflon **US-PGPUB**; 18:44 EPO; JPO; polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd **DERWENT** palladium mo molybdenum)) same ("1" "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and 7/27/04 7649)) (((Mind\$39fte2fetrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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(((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe tefion polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd

USPAT; **US-PGPUB**; 2004/07/27

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EPO; JPO; **DERWENT**

palladium mo molybdenum)) same ("9" and 7/27/04 7979;) ((Mind 39th 2 Tetrafluoroethylene hfp **Search History** tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd

USPAT; US-PGPUB; EPO; JPO; DERWENT 2004/07/27

B; 18:44

palladium mo molybdenum)) same ("9" and Search History 7/27/04 7479;)) (("Mind\$39ffe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

100 7878 2004/07/27 ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp **USPAT**; 18:44 **US-PGPUB**; hfp-tfe hexafluoropropylene ptfe teflon EPO; JPO; polytetrafluoroethylene)) same (cataly\$4 pt **DERWENT** platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and 7/27/04 7439;) ((Wind 339 the Retrafluoroethylene hfp Search History

tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

101 4219 (((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp USPAT; 2004/07/27 **US-PGPUB**; 18:44 hfp-tfe hexafluoropropylene ptfe teflon EPO; JPO; polytetrafluoroethylene)) same (cataly\$4 pt **DERWENT** platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pđ palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and 7/27/04 7439) (((Mind\$39fte³ tetrafluoroethylene hfp Search History

tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

USPAT; 2004/07/27 102 6649 (((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp 18:44 **US-PGPUB**; hfp-tfe hexafluoropropylene ptfe teflon EPO; JPO; polytetrafluoroethylene)) same (cataly\$4 pt **DERWENT** platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and 7/27/04 7439;04(Mind\$39fte tetrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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(((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt

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platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and 7/27/04 7439;) ((Mind\$39fte³ tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon nahitatuathiawathilawa\\ cama /aatahitA nt

((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pđ palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt

USPAT; **US-PGPUB**; EPO; JPO;

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palladium mo molybdenum)) same ("10" and **Search History** 7/27/04 7429;) ((Mind\$39fte tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon nalidatuatii.araatkiilana\\ aama /aatalii£A nt

platinum ru ruthenium rh rhodium pd

| 105 | 26580 | unsupport\$3 | USPAT; | 2004/07/27 |
|-----|-------|---|-----------|------------|
| | | | US-PGPUB; | 18:50 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 106 | 1505 | unsupport\$3 near2 (catalyst catalytic) | USPAT; | 2004/07/27 |
| | | | US-PGPUB; | 18:51 |
| | | | EPO; JPO; | |
| | | | DERWENT | |

((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pđ palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd

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palladium mo molybdenum)) same ("10" and 7/27/04 7939) (((Mind\$39fte3 tetrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("2" and "98")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("3" and "97")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("4" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "96")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("6" and "94")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("7" and "93")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("8" and "92")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("9" and "91")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd

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palladium mo molybdenum)) same ("10" and 7/27/04 7969)) ((Mind\$39fte3 tetrafluoroethylene hfp Search History tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon

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| 109 | 4744 | 429/4?.ccls. h01m 502/1\$.ccls. | USOCR | 2004/07/27 19:13 |
|-----|--------|---|-------|---------------------|
| 110 | 2047 | (429/4?.ccls. h01m 502/1\$.ccls.) and | USOCR | 2004/07/27 |
| | 1 | (cataly\$4 near5 (weight wt ratio "wt%" "wt.%" "%wt")) | | 19:15 |
| 111 | 116 | ((429/4?.ccls. h01m 502/1\$.ccls.) and | USOCR | 2004/07/27 |
| | | (cataly\$4 near5 (weight wt ratio "wt%" "wt.%" "%wt"))) and ((tfe tetrafluoroethylene | | 19:15 |
| | | hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe | | |
| | | teflon polytetrafluoroethylene)) | | |
| 112 | 192045 | (bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:17 |
| | | polytetrafluoroethylene) | | |
| 113 | 34787 | ((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt | | 19:17 |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum) | | |
| 114 | 1206 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:18 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("1" and | | |
| 115 | 6978 | "99") (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| 113 | 0970 | hfp-tfe hexafluoropropylene ptfe teflon | Joodk | 19:18 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("5" and | | |
| | | "95") | | |
| 116 | 8166 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt | | 19:18 |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("10" and | | |
| | | "90") | | |
| 117 | 7237 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:18 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("15" and | | |
| | | "85") | | |
| 118 | 9527 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:18 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("20" and | | |
| 440 | 40226 | "80") | USOCR | 2004/07/27 |
| 119 | 19226 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | USUCK | 19:19 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("25" and | | |
| | | "75") | | |

| 120 | 22472 | (((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("30" and | USOCR | 2004/07/27 19:19 |
|-----|-------|---|-------|---------------------|
| 121 | 29184 | "70") ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp | USOCR | 2004/07/27 19:19 |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe tefion polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and "90")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("15" and "85")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("20" and | | |
| | | "80")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("25" and | | |
| | | "75")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("30" and "70")) | | |

| 122 | 462 | (((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
|-----|-----|---|-------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:19 |
| | • | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("1" and | | |
| | | "99")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("5" and | | |
| | | "95")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("10" and | | |
| | | "90")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("15" and | | |
| | | "85")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("20" and | | |
| | | "80")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("25" and | | |
| | | "75")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("30" and | | |
| I | | "70"))) and (429/4?.ccls. h01m 502/1\$.ccls.) | | |

| 123 | 200 | ((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 |
|-----|-----|--|-------|------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:19 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("1" and | | |
| | | "99")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("5" and | | |
| | | "95")) ((((bind\$3 tfe tetrafluoroethylene hfp | - | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("10" and | | |
| | | "90")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("15" and | | |
| | | "85")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("20" and | | |
| | | "80")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("25" and | | |
| | | "75")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("30" and | | |
| | | "70"))) and (429/4?.ccls. h01m 502/1\$.ccls.)) | | |
| | | and (fuel adj cell\$1) | | |

| 124 | 165 | ((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp | USOCR | 2004/07/27 19:21 |
|-----|-----|--|-------|---------------------|
| | | hfp-tfe hexafluoropropylene ptfe teflon | | 19:21 |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("1" and | | |
| | | "99")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("5" and | | |
| | | "95")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("10" and | | |
| | | "90")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("15" and | | |
| | | "85")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("20" and | | |
| | | "80")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("25" and | | |
| | | "75")) ((((bind\$3 tfe tetrafluoroethylene hfp | | |
| | | tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon | | |
| | | polytetrafluoroethylene)) same (cataly\$4 pt | | |
| | | platinum ru ruthenium rh rhodium pd | | |
| | | palladium mo molybdenum)) same ("30" and | | |
| | | "70"))) and (429/4?.ccls. h01m 502/1\$.ccls.)) | | |
| | | and anode | | |

125 **USOCR** 2004/07/27 144 ((((((bind\$3 tfe tetrafluoroethylene hfp 19:22 tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and "90")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("15" and "85")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("20" and "80")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("25" and "75")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("30" and "70"))) and (429/4?.ccls. h01m 502/1\$.ccls.)) and (fuel adj cell\$1)) and ((((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("1" and "99")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("5" and "95")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt platinum ru ruthenium rh rhodium pd palladium mo molybdenum)) same ("10" and "90")) ((((bind\$3 tfe tetrafluoroethylene hfp tfe-hfp hfp-tfe hexafluoropropylene ptfe teflon polytetrafluoroethylene)) same (cataly\$4 pt 7/27/04 3/24iHfmPM ruRABfillim rh rhodium pd Search History palladium mo molybdenum)) same ("15" and

"QE"\\ /// /hind&2 tto totrofluoroothylana htm

| 126 | 1273 | cataly\$5 with bind\$3 with ratio | USPAT; | 2004/07/27 |
|-----|------|--|-----------|------------|
| | | | US-PGPUB; | 19:25 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 127 | 39 | (cataly\$5 with bind\$3 with ratio) and | USPAT; | 2004/07/27 |
| | | 429/\$.ccls. | US-PGPUB; | 19:25 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 128 | 7 | (cataly\$5 with bind\$3 with ratio) and h01m | USPAT; | 2004/07/27 |
| | | - | US-PGPUB; | 19:25 |
| | | | EPO; JPO; | |
| | | | DERWENT | |
| 129 | 46 | ((cataly\$5 with bind\$3 with ratio) and | USPAT; | 2004/07/27 |
| | | 429/\$.ccls.) ((cataly\$5 with bind\$3 with ratio) | US-PGPUB; | 19:25 |
| | | and h01m) | EPO; JPO; | |
| | | | DERWENT | |
| 130 | 25 | 5395705.URPN. | USPAT | 2004/07/27 |
| | | | | 19:28 |
| 131 | 8 | (US-6689505-\$ or US-6734132-\$ or | USPAT | 2004/07/27 |
| | | US-5314760-\$ or US-4818637-\$ or | | 19:28 |
| | | US-4380576-\$ or US-3859139-\$ or | | |
| | | US-3850694-\$ or US-4756980-\$).did. | | |